

## REMARKS

Reconsideration and allowance of the subject application are respectfully solicited.

Claims 1, 4, 7, 11, 13, 15, 17, and 18 are pending, with Claims 1 and 11 being independent. Claim 7 has been amended.

The Official Action required correction of the formal drawings as proposed in the Request for Approval of Drawing Changes filed February 12, 2003. In response, Applicant respectfully notes that the required corrected formal drawing was filed on April 11, 2003, receipt of which was acknowledged in the Official Action. Favorable consideration of the corrected formal drawing is earnestly solicited.

Claims 1, 4, 7, and 17 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 6,097,547 (Ogata, et al.). All rejections are respectfully traversed.

Claim 1 recites, inter alia, (a) that the layered diffraction optical member includes a first diffraction part of negative power and a second diffraction part of positive power provided behind the first diffraction part, and (b) that the first diffraction part and the second diffraction part are made of materials having dispersion characteristics different from each other.

However, Applicant respectfully submits that Ogata, et al. fails to disclose or suggest at least the above-discussed claimed combination of features as recited, inter alia, in Claim 1. The Official Action relies upon Fig. 8 (Example 1) of Ogata, et al. However, Applicant respectfully submits that such does not satisfy the requirement that the second diffraction part of positive power is provided behind the first diffraction part. Furthermore, Applicant respectfully notes that the materials of that example have identical dispersion characteristics ( $v_d$ ), i.e., -3.45 & 55.78 as compared to -3.45 & 55.78. (While some references

are made in Ogata, et al. to “3.45”, Applicant respectfully submits that the artisan would have appreciated that -3.45 was intended (see the SPIE article cited in the concurrently-filed Fourth Information Disclosure Statement)). Applicant also respectfully notes that while Figs. 11 and 14 of Ogata, et al. (Examples 5 and 7) disclose negative and positive power, in that order, those examples also use materials having identical dispersion characteristics, i.e., -3.45 & 55.78 as compared to -3.45 & 55.78. The Official Action relies upon col. 13 of Ogata, et al. regarding dispersions; however, Applicant respectfully notes that such relates to the master lenses ML1 and ML2 and not to the converter lens system CL. Further, the assertions in the Official Action that the claimed features constitute obvious “design choice” or are inherently disclosed are respectfully traversed as being without support. It is further respectfully submitted that there has been no showing of any indication of motivation in the cited document that would lead one having ordinary skill in the art to arrive at such claimed features.

Claims 11, 13, 15, and 18 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 5,636,000 (Ushida, et al.). All rejections are respectfully traversed.

Claim 11 recites, inter alia, that the layered diffraction optical member is formed to have high diffraction efficiency for diffracted light of a particular order over a visible wavelength range to be used in the optical system.

However, Applicant respectfully submits that Ushida, et al. fails to disclose or suggest at least the above-discussed claimed features as recited, inter alia, in Claim 11. Applicant respectfully submits that Ushida, et al. discloses that the apparatus “relates to a projection exposure apparatus for exposing/transferring fine patterns on a substrate, which apparatus is used for the manufacture of, e.g., semiconductor elements such as LSIs” (e.g., col. 1, lines 7-10), and that in the disclosed embodiment, the “projection lens system having the same

arrangement as that in Japanese Patent Laid-Open No. 4-214516 is used” (e.g., col. 14, lines 8-10). Applicants note that said Japanese document (and its U.S. counterpart Patent No. 5,170,207 (Tezuka, et al.)) discloses, e.g., that the projection lens system uses a light source having an ultraviolet wavelength, such as a KrF excimer laser. (See, e.g., Tezuka, et al., col. 7, lines 55-58.) Accordingly, Applicant respectfully submits that Ushida, et al.’s disclosed system is for ultraviolet range use, and that Ushida, et al. therefore does not disclose or suggest at least the above-discussed claimed features including, inter alia, the “visible wavelength range” as claimed. Further, the assertions in the Official Action that the claimed features constitute obvious “design choice” or are inherently disclosed are respectfully traversed as being without support. It is further respectfully submitted that there has been no showing of any indication of motivation in the cited document that would lead one having ordinary skill in the art to arrive at such claimed features.

The dependent claims are also submitted to be patentable because they set forth additional aspects of the present invention and are dependent from independent claims discussed above. Therefore, separate and individual consideration of each dependent claim is respectfully requested.

This Amendment After Final Rejection is an earnest attempt to advance prosecution and reduce the number of issues, and is believed to place this application in condition for allowance. Furthermore, Applicant respectfully submits that a full appreciation of these amendments will not require undue time or effort given the Examiner's familiarity with this application. Moreover, this Amendment was not earlier presented because Applicant earnestly believed that the prior Amendment placed the subject application in condition for allowance. Accordingly, entry of this Amendment under 37 C.F.R. § 1.116 is respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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